

Silverbells

Carolina silverbell (*Halesia tetraptera*; formerly *H. carolina*) and two-winged silverbell (*H. diptera*) are native trees to the Eastern United States. Silverbells are small- to medium-sized deciduous trees that bloom in the spring (late-March to late-April) with white, bell-shaped flowers that hang in clusters on year-old branches. The genus *Halesia* is pronounced Heylz'-ee-ah, and is named after Stephen Hales (1677-1761), English scientist and author of the famous work, *Vegetable Staticks*. Silverbells are in the plant family Styracaceae along with snowbells (*Styrax* spp.), which have similar white flowers.



Two-winged silverbell (*Halesia diptera*) blooms hang downward, and are best viewed from below.
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Landscape Use

Silverbells can make a dazzling springtime display when used beside a patio or along the edge of a woodland border. Both species of silverbell have a medium growth rate, and grow best in part-shade, as they are naturally understory trees. Carolina silverbell may reach heights of 30 to 40 feet,

whereas two-winged silverbell is smaller with a mature height of 20 to 30 feet and has a more rounded tree shape. Both species are hardy throughout South Carolina and have moderate drought tolerance.



Two-winged silverbell (*Halesia diptera*) in bloom before the leaves emerge.
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Varieties

Varieties of both species also occur in nature. Two-winged silverbell has flowers with petals that are about $\frac{3}{4}$ -inch long, but the variety *H. diptera* var. *magniflora* has larger white flowers (to $1\frac{1}{3}$ -inch long) and blooms profusely. *Halesia tetraptera* var. *rosea* is a variation of the Carolina silverbell with pink-blushed flowers. *Halesia tetraptera* var. *monticola* is known as mountain silverbell and has larger white flowers than Carolina silverbell. One available cultivar of the Carolina silverbell is 'Arnold Pink', which has $\frac{3}{4}$ -inch, rose pink flowers.



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Close-up of two-winged silverbell (*Halesia diptera*) blooms with flower petals only fused together near their base.

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Close-up of Carolina silverbell (*Halesia tetraptera*) blooms with flower petals fused together for about $\frac{3}{4}$ of their length.

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Cultivation

Silverbells thrive in rich, well-drained soils containing abundant organic matter. The soils where they naturally occur are acidic (pH 5.0 to 6.0), and there is an accumulation of leaf litter as mulch. The foliage will become chlorotic (yellow) if the soil is not adequately acidic. They are moderately drought tolerant once established, but do typically grow best in mesic woods (i.e., woods containing moderate soil moisture) either in floodplains, along stream banks, or on lower slopes of ravines.

If a silverbell is to be planted into heavy clay soil, it is best to till a large bed and amend the soil with organic matter, such as leaf compost or composted

pine bark. Thoroughly mix in organic matter at the rate of 20% by volume to improve soil aeration and drainage. Fertilize these acid-loving trees in the spring with either an azalea & camellia fertilizer or with an acid-forming organic fertilizer. Limestone is typically not required. Silverbells do not transplant well, and greater success may be found by planting containerized rather than balled-and-burlapped trees.

Problems

Silverbells generally have no pests of major concern. However, they may be prone to Phytophthora root rot if not planted into well-drained soil.

Propagation

Seed collected in fall (October) from either the two-wing or the Carolina silverbell will typically take until the second spring to germinate. A cold stratification, followed by warm, followed again by cold is required to break seed dormancy due to thick fruit walls.

Softwood cuttings taken during the summer will root with a high percentage for both Carolina (*H. tetraptera* and *H. t. var. rosea*) and mountain silverbells (*H. t. var. monticola*), but no success has been achieved rooting two-winged silverbell (*H. diptera*). As with most woody deciduous shrubs, the best month to root *H. tetraptera* cuttings is June. However, high rooting percentages still can be achieved with cuttings taken between May and August. However, survival of the cuttings is greater for those rooted earlier. Treat softwood cuttings with a rooting hormone containing 1,000 to 10,000 ppm IBA for 80 to 100% rooting. Root cuttings under mist or in a high humidity enclosure. Root cuttings in pots or cells in which they can grow, be hardened off, and over-winter to minimize root disturbance. They can be repotted in the spring. Examples of brands of rooting hormone containing 1,000 ppm IBA are Green Light Rooting Hormone, Schultz Take Root, Miracle Gro Fast Root Rooting Hormone, Ferti-lome Rooting Powder, and Bonide Bontone Rooting Powder.

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